

REMARKS

Claims 1 through 23 are pending in this application. Claims 2, 5-8, 10, and 13-16 are amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. Claims 21, 22 and 23 have been newly added. The Applicant appreciates the Examiner's indication of allowability concerning claims 3, 11 and 17-20.

I. Claim Objections

A. The Examiner objected to claim 8 because the Examiner stated that claim 8 recites the limitation "said ground contact" in line 2 and there is insufficient antecedent basis for this limitation in the claim. Claim 8 was amended accordingly.

B. The Examiner objected to Claim 16 because the Examiner stated that claim 8 recites the limitation "said ground contact" in line 2. There is insufficient antecedent basis for this limitation in the claim. The Applicant assumed that the Examiner meant to say claim 16 recites such a limitation and therefore, claim 16 was amended accordingly.

II. REJECTION OF CLAIMS (35 U.S.C. § 103)

Claims 1, 2, 4-10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art (Fig. 1) in view of Hansell, III et al. (USPN 5,176,538). The Applicant

respectfully traverses.

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A. Concerning claims 1 and 9, the Examiner states that as shown in Fig. 1, Applicant's Prior Art discloses a flat panel displaying apparatus, a liquid crystal display controller 129 provided in said

printed circuit board 125 and a ground portion 135 formed around said liquid crystal display controller.

The Examiner admits that the Applicant's prior art does not disclose a reinforcement connector connected to said ground portion and supporting the ground of said printed circuit board.

However, the Examiner states that Hansell does teach or suggest a reinforcement connector connected to said ground portion and supporting the ground of said printed circuit board. The Examiner states that as shown in Figs. 1-3, Hansell discloses a connector 1 having a reinforcement connector 8 (ground spring finger) connected to and formed with a ground portion 6 and supporting the ground of a printed circuit board (PCB) 21 via a ground pin 17 formed in a header 20 of the PCB 21, this reinforcement connector 8 is provided on the header 20 of the PCB 21.

Respectfully, however, the "reinforcement connector" of Hansell is on the cable connection and not on the PCB of the LCD having the controller of the LCD and there is no suggestion or motivation to modify Hansell to have the ground spring finger on the PCB instead of the cable connector.

The Examiner mentions that the ground spring finger 8 is formed with the ground portion 6 and that the ground spring finger supports the printed circuit board 21. However, Hansell does not teach the ground portion 6 being formed around the LCD controller provided on the printed circuit board because as mentioned above, Hansell's ground portion and ground spring finger are on the connector cable. The present invention, however, has the ground portion formed around the LCD controller and the controller is provided in said printed circuit board. Moreover, the present

invention, unlike Hansell, has the reinforcement connector connected to and formed with the ground portion, where the ground portion is formed around the LCD controller and the LCD controller is provided on the PCB.

The Examiner stated that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the flat panel display apparatus of the Applicant's Prior Art of with the teaching of Hansell by employing a reinforcement connector connected to the ground portion and supporting the ground of the printed circuit board for enabling to achieve a high normal force and ensuring reliability and environmental stability when engaged with the connection cable (col. 3, lines 40-45).

However, looking closely at col. 3, lines 40-45, the text of Hansell does not teach such a motivation. Col. 3, lines 40-45 specifically states that "The spring finger ground contacts 8 are an integral part of the ground shield. They are mechanically stressed prior to ground pin insertion thus enabling them to achieve a high normal force (100 g) and ensuring reliability and environmental stability when engaged." This text mentions nothing about modifying the spring finger to be on the PCB or the ground portion to be formed around the LCD controller.

As mentioned in MPEP §706.02(j), "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." Clearly here, no such teaching or suggestion to make the combination was provided in Hansell.

"Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to

defeat patentability. *In re Dembiczkak*, 175 F.3d 994, 50 USPQ.2d 1614 (Fed. Cir. 1999). The showing must be “clear and particular” without broad generalized conclusory statements. *Id.* There must be specific statements showing the scope of the suggestion, teaching, or motivation to combine the prior art references. *Id.* at 1000. There must be an explanation to what specific understanding or technical principle would have suggested the combination of references. *Id.*

Respectfully, the motivation given by the examiner does not have the proper scope and does not teach specifically the modification that is necessary. Without such, then the Examiner is clearly using the present application as a blueprint. The generalized statement does not explain how a person of ordinary skill would be motivated to modify Hansell to have the spring finger and the ground portion formed with the LCD controller and the PCB. The spring finger and the ground portion of Hansell gets connected to the PCB, but is not formed with the PCB.

Furthermore, Hansell is actually teaching away from the presently claimed invention and therefore, should not be combined with other references.

The Federal Circuit has mentioned that “[t]he test for obviousness is not whether the features of one reference may be bodily incorporated into another reference...Rather, we look to see whether combined teachings render the claimed subject matter obvious.” *In re Wood*, 599 F.2d 1032, 202 USPQ 171, 174 (CCPA 1979) (citing *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549-50 (CCPA 1969); *In re Mapelsden*, 329 F.2d 321, 322, 141 USPQ 30, 32 (CCPA 1964)).

According to MPEP §2145, “It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir.

1983). Therefore the portion of Hansell cannot be just ignored because according to MPEP §2141.02, “A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).”

Here, Hansell is teaching of a spring finger and its ground portion on the connector cable, which is teaching away from having a reinforcement connector and the ground portion formed with the reinforcement connector, on with the LCD controller and its PCB. In fact Hansell, as seen in figure 1 is there to connect to a PCB and not actually formed on the PCB. Figure 13 clearly shows the separation of the PCB and the spring finger which the examiner relates to the reinforcement connector. The spring finger accepts the connector formed on the PCB and not actually formed on the PCB. Therefore, clearly, not only is there no motivation to modify Hansell to be as the present invention, but Hansell is actually teaching away from the present invention.

Furthermore, when combined, Hansell and figure 1 of the present application would provide the spring finger and ground portion on the connection cable and not on the printed circuit board, therefore, the combination of Hansell and figure 1 would not even teach or suggest all of the limitations of the present invention.

B. Concerning claims 2 and 10, the Examiner stated that said reinforcement connector 8 is connected to a connection cable 10 via a ground conductor 13 which contacts the ground portion 6.

However, as mentioned above, the spring finger 8 of Hansell is formed at the connection cable itself and it is detachably connected to the PCB. The present invention, however, detachably connects to the connection cable as shown in the present claims and supported by the specification and figure 4 and 5A.

The combination of Hansell and figure 1 in the present application would form the spring finger on the connection cable and not on the PCB.

C. Concerning claims 5, 7, 13 and 15, the Examiner stated that as shown in Fig. 2, Hansell further discloses a second reinforcement connector 8 connected to the connection cable 10 and the ground portion 6, said reinforcement connector supporting a ground of said PCB 21.

Again, the spring finger 8 of Hansell is formed on the connection cable and is not detachably connected to the connection cable since Hansell's spring finger (the Examiner relating the spring finger 8 to the reinforcement connector) is formed on the connection cable.

D. Concerning claims 6 and 14, the Examiner stated that as shown in Fig. 2, said reinforcement connector and said second reinforcement connector are on opposite sides of the connector 1 (one on left and the other on right) coupling with the connection cable 10, said connector 1 receiving data signals via signal conductor 15 and contact 12 from the external system to said PCB .

(col. 3, lines 50-53).

However, the “connector” is provided on the printed circuit board in the present invention, but the spring finger 8 of the combination of references is on the cable connection, therefore, it would not be possible to have the two reinforcement connectors formed on opposite sides of the connector.

E. Concerning claims 8 and 16, the Examiner stated that the connector 1 has a ground pin 17 connected to said reinforcement connector accommodating said connector to be grounded through said ground portion 6.

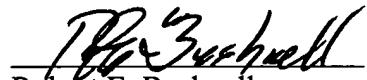
However, the ground pin 17 is a part of the header 20 that extends from the PCB 21 of Hansell, while unlike the presently claimed invention, the reinforcement connector of Hansell is separately formed on the connection cable.

Moreover in claim 8, said ground pin is detachably connected to a second ground pin of said connection cable which the combination of references fails to teach or suggest.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant’s attorney.

A fee of \$54.00 is incurred by this Amendment for the addition of three (3) claims above twenty (20). Applicant's check drawn to the order of the Commissioner accompanies this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



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